

REMARKS

Reconsideration of the application as amended is respectfully requested.

The claimed subject matter generally involves an application using a computer's operating system write operation to tunnel commands to a process running on a processor of a device that is connected to a computer. The commands are specific to the device and are not intended to be acted on by the host computer. The data processing device is adapted to appear to the computer as a data storage device having a file system to which the computer is capable of writing files. Thus, the application generates the device-specific command, places it in a file, and asks the host computer to write it to the storage device. To the host computer's operating system, the connected data processing device acts a mass data storage device with a corresponding file system, and writes the file to the device as it would any other connected mass data storage device having a file system. The device, once it receives the contents of the file, reads the command from the contents of the file and executes it. It does not need to store the file. In one embodiment, the data processing device may includes a mass data storage medium for storing files written by the computer. In another embodiment, it does not, despite appearing that it does to the operating system of the computer. The independent claims contemplate both embodiments.

The claimed subject matter has an advantage of not requiring use of a special device driver on the host computer for enabling an application to communicate with the attached device. By appearing to be a data storage connected to an interface – for example, by pretending to be flash memory connected at a USB port – the device is able to communicate with the application using drivers that are already typically part of the operating system, and that are typically available to users without administrative privileges. See specification at para. 0008 and 0009.

Rejections Are Traversed

The rejection under 35 U.S.C. §102(a) is respectfully traversed on grounds that U.S. Publication No. 2003/0028731 of Spiers et al. cannot anticipate any of claims 9-27. The rejection of claim 28 under 35 U.S.C. §103 is also traversed.

Spiers et al. discloses a network attached storage (NAS) device having an associated block storage device (for example, a hard drive). An NAS is a “device that is dedicated to data storage and has its own network address.” Spiers et al. at para. 0012. The NAS comprises a network interface for communicating over LAN or WAN, an interface to the block data storage device, and a processor running an operating system. *Id.* at para 0013. The processor receives a “network command” and generates a string of one or more commands specific to the block data storage device that is necessary to carry out the network command. *Id.* The network command is sent by a host computer 16, in response to an application 38 requesting of operating system 40 to read or write a file. The operating system includes a special interface and driver called a “host block data storage processor” 42 that is specifically adapted to handle requests from the application program that involve the NAS’s block data storage devices 16. *Id.* at para. 0038.

Therefore, in essence, the combination of the NAS device and the host computer’s “virtual interface” and “virtual device” make a remote block storage device appear to an application on the host computer to be local, i.e. connected to the computer. Spiers et al. describe this in paragraph 0015, as well as in paragraph 0038:

The host operating system 40 comprises a host remote block storage device processor 42 that is specifically adapted to handle requests from the application program 38 that involve the block data storage devices 26 associated with the NAS device 14. For illustration purposes, the block data storage devices 26 are represented within the host computer 16 as “virtual” block data storage devices 26’. Specifically, the host operating system 40 with the host remote block storage device processor 42 operates to: (1) receive requests from an application program that relate to the reading or writing of data to a file located on one of the block data storage devices 26, i.e., a file request; (2) translate the file request into one or more network commands; (3) cause a network command to be conveyed to the host network interface 36; (4) receive a response to a previously conveyed network command from the host network interface; and (5) transmit, if appropriate, the response to the application program.

Thus, a request by the operating system from the application for a file stored on a remote block data storage device is turned into a “network command,” which is then sent over a network to a NAS, which then generates from the network command into one or more commands for operating a block data storage device connected to the NAS. *See, also, id.* at 0042. Consequently, it is submitted that, with this virtualization mechanism, a remote block data storage device – a hard drive – is made to look like a locally connected hard drive.

Applicants submit that Spiers et al. cannot, for reasons set forth in its amendment filed January 28, 2009, anticipate the claimed subject matter or render it obvious. Please refer to remarks of January 28, 2009 for details. Briefly, it is submitted that, among other things, Spiers et al. does not disclose or suggest an application program running on a computer that generates a command for execution by a process on a data processing device connected to the computer that is first stored in a file; it does not disclose requesting an operating system of the computer to write that file to the data processing device; it does not disclose a data processing with a processor that appears to be a mass data store device to the computer; and it does not disclose a process executing on the processor of the data processing device that reads command from the file written to the data processing device by the operating system and then executes it.

Amendments

The amendments to independent claims 9, 19, 26 and 29 are intended only to clarify what applicants have previously stated and have previously argued that the claims cover. Applicants continue to maintain that such subject matter is not taught or suggested by Spiers et al. or by the other art of record. It is submitted that all dependent claims are allowable as being dependent on allowable independent claims.

The amendments are being made to better define the claimed subject matter without narrowing its scope. In view of the errors noted in the rejection, applicants are not making the foregoing amendments in response to a rejection.

Interview Summary

The undersigned representative wishes to thank Examiner Ruiz and her supervisor for meeting with the undersigned representative and one of the inventors, Marcellus Buchheit.

A demonstration of the patent owner's product incorporating the claimed subject matter was conducted. The claimed subject matter was also explained, and differences between it and U.S. published application no. 2003/0028731 of Spiers et al. were discussed.

Claim 9 of a proposed amendment was considered. Although no agreement was reached on whether claim 9 would be allowed, the examiners indicated that the proposed amendments to claim 9 would distinguish that claim over U.S. published application no. 2003/0028731 of Spiers et al.

The foregoing amendments incorporate amendments that are similar, but not identical, to the amendments that were proposed, and therefore are distinguishable over the art of record for the reasons that were discussed.

Conclusion

In view of the above amendment, Applicants respectfully submit that the present application is in condition for allowance. A notice to that effect is respectfully requested.

The Commissioner is hereby authorized to charge any fees due or credit any overpayments made to Deposit Account No. 070153 of Gardere Wynne Sewell LLP, referencing 125542-1005.

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